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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,598	09/22/2003	Fumio Kubo	1131-0488P	6369

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
CORDRAY, DENNIS R	
ART UNIT	**PAPER NUMBER**
1731	

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/665,598	KUBO ET AL.	
	Examiner	Art Unit	
	Dennis Cordray	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-9 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-9 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 08 November 2005 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 11/8/2005.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "introducing means for causing a flow of air flowing toward said feed passage to be produced in said separation passage at a higher level than the intermediate portion thereof" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "a separation passage having an upper end opening into said feed passage on a downstream side of said separation chute." The meaning of "a downstream side of said separation chute" is not clear. Since the downstream side of the separation chute terminates near an intermediate portion of the separation passage, is it intended that the feed passage be adjacent to the intermediate portion of the separation passage? Or does the upper end of the separation passage open into the feed passage downstream of the inlet to the feed passage?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brand et al (5645086) or Kazuichi et al (JP 2957173) in view of Okumoto et al (EP 0165080) and further in view of Labbe et al (4121596).

Brand et al discloses a shredded tobacco feeding apparatus for a cigarette manufacturing process (Figure, cols 3-6) comprising:

a feed passage extending to the tobacco band of the cigarette manufacturing machine (ref. nos. 24 and 52; col 4, lines 19-23; col 5, lines 29-34),

supply means causing the shredded tobacco to fall to an inlet of the feed passage (ref. no. 11; col 3, lines 37-47),

pneumatic transport means for producing a flow of air in the feed passage toward the suction surface of the tobacco band (ref. no. 14; col 3, lines 47-57),

a separation chute having an upper end opening in the vicinity of the feed passage inlet (area between plenum 13 and rotary wheel gate 17; col 3, lines 56-59),

a separation passage opening into the feed passage downstream of the separation chute and having a lower end opening downward (ref. no. 18; col 3, line 59 to col 4, line 18),

delivery means for collecting shredded tobacco in the separation chute and delivering it to an intermediate portion of the separation passage, the delivery means sealing a junction between the separation chute and separation passage (ref. no. 17; col 3, lines 57-63),

an introducing means for causing a flow of air flowing toward said feed passage to be produced in said separation passage at a higher level than the intermediate portion thereof (ref. nos. 19 and 21; col 3, line 66 to col 4, line 11). The flow of air toward said feed passage would allow outside air to be introduced to the separation passage from the lower end opening.

Kazuichi et al discloses a cut tobacco feeder for a cigarette producing apparatus (Figs 1-2) comprising:

a feed passage extending to the tobacco band of the cigarette manufacturing machine (ref. nos. 12 and/or 16),

supply means causing the shredded tobacco to fall to an inlet of the feed passage (ref. no. 4),

pneumatic transport means for producing a flow of air in the feed passage toward the suction surface of the tobacco band (ref. nos. 10 and/or 14),

a separation chute having an upper end opening in the vicinity of the feed passage inlet (ref. nos. 40 and/or 42),

a separation passage opening into the feed passage downstream of the separation chute and having a lower end opening downward (ref. nos. 44 and/or 58),

delivery means for collecting shredded tobacco in the separation chute and delivering it to an intermediate portion of the separation passage, the delivery means sealing a junction between the separation chute and separation passage (ref. no. 50).

Brand et al and Kazuichi et al do not disclose a detection means or a removing means for accumulations of shredded tobacco in the separation passage.

Okumoto et al disclose a shredded tobacco feeder for a cigarette producing apparatus comprising a feed path through which shredded tobacco passes to the cigarette conveyor of the cigarette making machine. Okumoto et al teaches that

tobacco pieces can accumulate in the feed path and cause clogging and subsequent shut down or damage of the apparatus. A detection device monitors the path and produces an alarm signal stopping the machine when a plug is detected (Abs; p 2, lines 1-35). The detection device can be a photoelectric reflective type detector that emits light from one wall and senses the light reflected back from the opposite wall. Alternatively, the photoelectric device can emit light from one wall and sense the light with an optical sensor on the opposite wall (p 6, line 27 to p 7, line 26; Figs 6a-d). The two types of detection device are analogous to the claimed devices.

Okumoto et al does not disclose the use of a mirror on a wall opposite the light emitting portion of the detection device. Okumoto does not disclose an air blowing means for ejecting air along one of the light emitting/receiving or mirror surfaces. Okumoto does not disclose a removing means for accumulations of shredded tobacco.

Labbe et al discloses a cigarette making machine comprising a steeply sloping feed channel through which shredded tobacco passes in a downward direction before being fed to a tobacco band (Fig. 1, ref. no. 40; col 3, line 49 to col 4, line 5). The height of the tobacco in the feed channel is controlled by photoelectric sensors, which vary the rate at which tobacco is fed to the channel (col 4, lines 6-10). In addition, one wall of the channel can be vibrated to facilitate the feed of tobacco through the channel (col 3, lines 63-65).

The art of Brand et al, Kazuichi et al, Okumoto et al, Labbe et al and the instant invention are analogous as pertaining to the transport of shredded tobacco in a cigarette making apparatus. It would have been obvious to one of ordinary skill in the art to use photoelectric detectors to detect if tobacco shreds were accumulating in the separation passage in the tobacco feeding apparatus of Brand et al or Kazuichi et al in view of Okumoto et al and further in view of Labbe et al to prevent catastrophic shutdown of the process or damage to the apparatus. The use of a mirror in the opposite wall from a photoelectric reflective type detector would have been obvious to provide as good of a reflection as possible. Employing a stream of puffs of air to keep the light emitting/receiving or mirror surfaces clean would have been an obvious step to ensure accurate sensor operation. While the detectors in the process of Okumoto et al shut down the apparatus when a plug is detected, an alarm to notify the operator would be an obvious step as well. It would also have been obvious to use vibration of at least one wall of the separation passage as a well known means to loosen potential clogs and aid in the transport of the tobacco pieces through the passage.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure [Heitmann (5267576), Mattei et al (4756315)]. Heitmann discloses an apparatus similar to those of Brand et al and Kazuichi et al. Mattei et al discloses a cigarette making apparatus that uses both photoelectric sensors and selective vibration to control flow.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DRC

STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700